

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of  
**Jong Seok KIM et al.**Serial No.: **10/717,936**Filed: **November 21, 2003**Confirmation No.: **7539**Group Art Unit: **1746**Examiner: **Rita Ramesh Patel**For: **WATER SUPPLY ASSEMBLY OF WASHING MACHINE**Customer No.: **34610****PRE-APPEAL BRIEF REQUEST FOR REVIEW**

U.S. Patent and Trademark Office  
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401 Dulany Street  
Alexandria, Virginia 22314

Sir:

Applicants request review of the final rejection of this application. No amendments are being filed with this Request. This Request is being filed with a Notice of Appeal.

The Office Action rejects claims 1, 3, 12 and 14 under 35 U.S.C. §103(a) over U.S. Patent No. 3,896,641 to Worst (hereinafter “Worst”).

Independent claim 1 is directed to a water supply assembly for a washing machine. Independent claim 1 recites a water supply valve assembly configured to control a supply of water to a detergent box assembly, wherein the water supply valve assembly is positioned above the detergent box assembly. Claim 1 also recites a hose configured to connect the detergent box assembly to the water supply valve assembly, wherein the hose is oriented at a downward slant from the water supply valve assembly to the detergent box assembly based on a relative vertical positioning of the water supply value assembly and the detergent box assembly. Claim 1 further recites that the detergent box assembly is provided under a top plate of the washing machine and that the water supply valve assembly is provided over the top plate. Independent claim 12

recites similar features in varying scope. Worst neither discloses nor suggests at least features, or the claimed combination of features.

Worst discloses a vertical agitator type washing machine 10, including a valve assembly 54 connected to hot and cold water conduits 56 and 58 to supply clean wash water to a tub 12. Used wash water is drained from the tub 12 through a conduit 42 into a recirculating pump 40 and through a conduit 44, where it is forced up to a fluidic switch 48. A filter-dispenser 70 positioned at the top of the tub 12 has three chambers 74, 76 and 78 which each hold a wash agent. The fluidic switch 48 operates such that re-circulated water from the conduit 44 is introduced into an appropriate one of the chambers 74, 76, 78 through a corresponding conduit 86, 88, 90, respectively, thereby flushing the wash agents into the basket 14.

The recirculating pump 40 and conduit 44 (compared in the Office Action to the recited water supply valve assembly) are clearly positioned well below the filter-dispenser 70 (compared in the Office Action to the recited detergent box assembly). Worst neither discloses nor suggests a water supply valve assembly positioned above a detergent box assembly, nor that the water supply valve assembly is provided over the top plate, as recited in independent claims 1 and 12.

The Office Action asserts that Figure 2 of Worst shows the conduits 86, 88 and 90 to be at an angled position leading into the chambers 74, 76 and 78, respectively. However, as clearly shown in the front sectional view provided in Figures 1 and 4 of Worst, the conduits 86, 88 and 90 extend upward from the fluidic switch 48 and through a 90 degree bend leading substantially horizontally into the respective chambers 74, 76, 78. The perceived slant in Figure 2 of Worst is merely due to its perspective orientation. Accordingly, it is respectfully submitted that neither the conduit 44 nor the conduits 86, 88, 90 are positioned at a slant, as is the hose recited in independent claims 1 and 12.

The Office Action and subsequent Advisory Action dated February 1, 2007 assert that it would have been obvious to one of ordinary skill in the art to modify Worst's washing machine 10 such that the water supply valve assembly (the disclosed pump 40 and conduit 44) would be positioned above the detergent box (the disclosed filter-dispenser 70), and above the top plate of the washing machine. Each Action further asserts that such a modification would not require a complete redesign of the water supply, flow and drain scheme as disclosed by Worst, or destroy the machine's functionality as originally intended. More specifically, the Office Action and Advisory Action each assert that movement of the conduit 44 and pump 40 to a position above the filter-dispenser 70 would improve a flow of wash water in the washing machine 10 disclosed by Worst.

It is respectfully submitted that one of ordinary skill in the art would not have been motivated to move the pump 40 and conduit 44 to a position above the tub 12. The pump 40 and conduit 44 are a part of the drain system, and must be positioned at the bottom of the tub 12 to ensure that the used wash water is drained from the tub 12, as these components rely at least partially on gravity to direct water to be drained in the correct direction.

For instance, if the water level in the tub were quite low, as would be the case when a small laundry load is being washed, the water level in the conduit 44 would only be equal to the level in the tub. If the pump 40 were positioned above the tub, the pump would be inoperable since no water would exist in the pump. Water being supplied to the pump must be supplied with a certain positive pressure for the pump to be operative. For at least this reason, it is respectfully submitted that the pump would always be positioned at the bottom of the tub.

Since the pump must always be positioned below the tub, one of skill in the art would have had no motivation to mount the fluidic switch 48 to a position above the dispenser 70, and

to a location above the top plate of the washing machine. Doing so would unnecessarily increase the length of the conduit 44, and would require that the conduit pass through the top plate twice, once to reach the fluidic switch, and then again to reach the dispenser. Worst neither discloses nor suggests any openings in the top of the cabinet 20 through which the conduit may pass, nor any structure above the top of the cabinet 20 which could support the upper portion of the conduit 44 and the fluidic switch 48. These changes would unnecessarily complicate the structure of the Worst machine, and would increase the cost of the device.

Moreover, it is respectfully submitted that it requires the impermissible use of hindsight, in view Applicants' invention, to arrive at a motivation for changing the location and orientations of the water supply valve relative to the dispenser of the Worst device. Washing machines having fluid dispensers are well known in the art. If it was obvious to mount the water supply valve leading to the fluid dispenser at a position above the fluid dispenser, it is respectfully submitted that prior art references disclosing this arrangement would be available to the Examiner. Instead, no references show this arrangement. The fact that none of the prior art references available to the Examiner show this arrangement is further evidence of the fact that the arrangement was not obvious.

The Applicants discovered that the re-positioning the water supply valve above the fluid dispenser can have advantages. And now the Examiner appears to be using the teaching of the Applicants' invention to selectively re-construct the elements of a prior art reference. This is exactly the sort of hindsight reconstruction which is prohibited. For these additional reasons, it is respectfully submitted the devices recited in claims 1 and 12 are not obvious in view of Worst.

For at least these reasons, it is respectfully submitted that independent claims 1 and 12 are not anticipated or obvious over Worst, and thus the rejection of independent claims 1 and 12

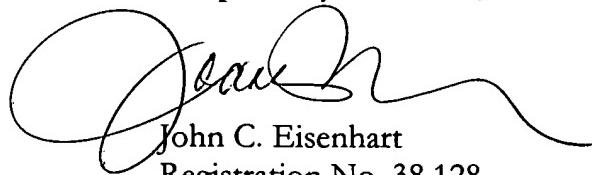
under 35 U.S.C. §103(a) over Worst should be withdrawn. Dependent claims 3 and 14 are allowable at least for the reasons set forth above with respect to independent claims 1 and 12, from which they respectively depend, as well as for their added features.

The Office Action also rejects claims 4-11 and 15-23 under 35 U.S.C. §103(a) over Worst, in view of Hobbs (U.S. Patent No. 6,125,881). The rejection is respectfully traversed.

Claims 4-11 and 15-23 depend, respectively, from independent claims 1 and 12. As discussed above, Worst fails to disclose or suggest all of the features 1 and 12. The Hobbs reference fails to cure the deficiencies of Worst. Accordingly, it is respectfully submitted that claims 4-11 and 15-23 are also allowable over Worst and Hobbs for all of the reasons discussed above in connection with claims 1 and 12. Withdrawal of the rejection of these claims is also respectfully requested.

Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,



John C. Eisenhart  
Registration No. 38,128  
Joanna K. Mason  
Registration No. 56,408

P. O. Box 221200  
Chantilly, VA 20153-1200  
703 766-3777 JCE:JKM:lhd  
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